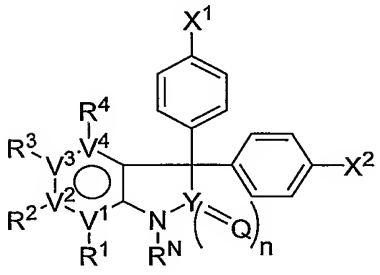
CLAIMS

1. Use of a compound of the general formula (I)



(I)

wherein

V^1, V^2, V^3, and V^4 independently are selected from a carbon atom, a non-quaternary nitrogen atom, an oxygen atom, and a sulfur atom, and where V^4 further may be selected from a bond, so that $-V^1-V^2-V^3-V^4-$ together with the atoms to which V^1 and V^4 are attached form an aromatic or heteroaromatic ring;

R^1, R^2, R^3, and R^4, when attached to a carbon atom, independently are selected from hydrogen, optionally substituted C_{1-6}-alkyl, optionally substituted C_{2-6}-alkenyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{2-6}-alkenyloxy, carboxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, optionally substituted C_{1-6}-alkylcarbonyloxy, formyl, amino, mono- and di(C_{1-6}-alkyl)amino, carbamoyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, cyano, carbamido, mono- and di(C_{1-6}-alkyl)aminocarbonylamino, C_{1-6}-alkanoyloxy, C_{1-6}-alkylsulphonyl, C_{1-6}-alkylsulphinyl, aminosulfonyl, mono- and di(C_{1-6}-alkyl)aminosulfonyl, nitro, optionally substituted C_{1-6}-alkylthio, aryl, aryloxy, arylcarbonyl, arylamino, heterocyclyl, heterocyclyloxy, heterocyclylamino, heterocyclylcarbonyl, heteroaryl, heteroaryloxy, heteroarylamino, heteroarylcarbonyl, and halogen, where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted;

R^1, R^2, R^3, and R^4, when attached to a nitrogen atom, independently are selected from hydrogen, optionally substituted C_{1-6}-alkyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, formyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, amino, C_{1-6}-alkylcarbonylamino, mono- and di(C_{1-6}-alkyl)amino, C_{1-6}-alkylsulphonyl, C_{1-6}-alkylsulphinyl, aryl, aryloxy, arylcarbonyl, arylamino,

heterocyclyl, heterocyclyloxy, heterocyclylcarbonyl, heterocyclylamino, heteroaryl, heteroaryloxy, heteroarylcarbonyl, and heteroarylamino; where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted;

or R^1 and R^2 together with the carbon atoms to which they are attached form a ring, e.g. an aromatic ring, a carbocyclic ring, a heterocyclic ring or a heteroaromatic ring, in particular an aromatic ring, a heterocyclic ring or a heteroaromatic ring;

X^1 and X^2 are independently selected from halogen, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{1-6}-alkylcarbonyloxy, amino, mono- and di(C_{1-6}-alkyl)amino, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, mono- and di(C_{1-6}-alkyl)amino-carbonylamino, C_{1-6}-alkanoyloxy, mercapto, optionally substituted C_{1-6}-alkylthio, C_{1-6}-alkylsulfonyl, mono- and di(C_{1-6}-alkyl)aminosulfonyl, aryloxy, arylamino, heterocyclyloxy, heterocyclylamino, heteroaryloxy and heteroarylamino, where any C_{1-6}-alkyl as an amino or sulphur substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted;

$>Y(=Q)_n$ is selected from >C=O, >C=S, >S=O and $>S(=O)_2$; and

R^N is selected from the group consisting of hydrogen, optionally substituted C_{1-6}-alkyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, formyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, amino, C_{1-6}-alkylcarbonylamino, mono- and di(C_{1-6}-alkyl)amino, C_{1-6}-alkylsulphonyl, and C_{1-6}-alkylsulphinyl; where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s); and

pharmaceutically acceptable salts and prodrugs thereof;

for the preparation of a medicament for the treatment of cancer in a mammal.

2. The use according to claim 1, wherein R^1, R^2, R^3 and R^4 are not all hydrogen.

3. The use according to any one of the preceding claims, wherein the ring is selected from a benzene ring and a pyridine ring where the nitrogen atom represents V^3.

4. The use according to any one of the preceding claims, wherein R^1 is selected from hydrogen, halogen, C_{1-6}-alkyl, trifluoromethyl and C_{1-6}-alkoxy, when V^1 is a carbon atom.

5. The use according to any one of the preceding claims, wherein R^2 is selected from hydrogen, halogen, optionally substituted aryl, optionally substituted aryloxy, and optionally substituted heteroaryl, when V^2 is a carbon atom.

6. The use according to any one of the preceding claims, wherein R^3 is selected from hydrogen, optionally substituted C_{1-6}-alkoxy, halogen, cyano, optionally substituted aryl, optionally substituted aryloxy, optionally substituted heteroaryl, amino, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, and mono- and di(C_{1-6}-alkyl)aminosulfonyl, when V^3 is a carbon atom.

7. The use according to any one of the preceding claims, wherein R^4 is hydrogen, when V^4 is a carbon atom.

8. The use according to any one of the preceding claims, wherein X^1 and X^2 independently are selected from hydroxy, OAc, NH_2, NMe_2, NHAc, $NHSO_2Me$ and $NHCONMe_2$.

9. The use according to any one of the preceding claims, wherein X^1 and X^2 are the same.

10. The use according to any one of the preceding claims, wherein Y is a carbon atom and Q is an oxygen atom, i.e. $>Y(=Q)_n$ is >C=O, and R^N is selected from hydrogen, C_{1-6}-alkyl, amino, and C_{1-6}-alkylcarbonylamino.

11. The use according to any one of the preceding claims, wherein V^1, V^2, V^3, V^4 all are a carbon atom, $>Y(=Q)_n$ is >C=O, and R^N is hydrogen.

12. The use according to any one of the preceding claims, wherein R^4 is hydrogen.

13. The use according to claim 12, wherein R^3 and R^4 both are hydrogen.

14. The use according to any one of the claims 11-13, wherein R^1 is C_{1-4}-alkyl and R^2 is halogen.

15. The use according to any one of the claims 11-13, wherein R^1 and R^2 together with the carbon atoms to which they are attached form an aromatic ring or a carbocyclic ring.

16. The use according to any one of the claims 11-15, wherein each of X^1 and X^2 independently are selected from halogen, hydroxy, C_{1-4}-alkoxy, amino, and dimethylamino.

17. The use according to claim 12, wherein R^1, R^2 and R^4 all are hydrogen.

18. The use according to any one of the claims 11 and 17, wherein R^3 is selected from hydrogen, halogen, nitro, C_{1-4}-alkyl, C_{1-4}-alkoxy, trifluoromethoxy, amino, carboxy, and dimethylaminocarbonyl.

19. The use according to any one of the claims 17-18, wherein each of X^1 and X^2 independently are selected from halogen, hydroxy, C_{1-4}-alkoxy, amino, and dimethylamino.

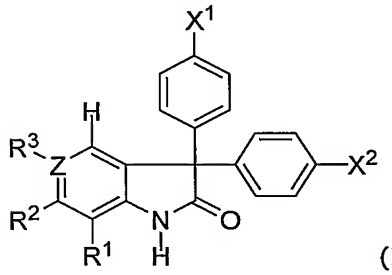
20. The use according to claim 12, wherein R^2, R^3 and R^4 all are hydrogen.

21. The use according to any one of the claims 11 and 20, wherein R^1 is selected from fluoro, chloro, bromo, C_{1-4}-alkyl, trifluoromethyl, C_{1-4}-alkoxy, and dimethylaminocarbonyl.

22. The use according to any one of the claims 20-21, wherein each of X^1 and X^2 independently are selected from halogen, hydroxy, C_{1-4}-alkoxy, amino, and dimethylamino.

23. The use according to any one of the claims 11 and 12, wherein R^1 is selected from halogen, C_{1-4}-alkyl, trifluoromethyl, C_{1-4}-alkoxy, and dimethylaminocarbonyl, R^2 is selected from hydrogen and halogen, and R^3 is selected from hydrogen, halogen, C_{1-4}-alkyl, and amino; where R^2 and R^3 are not both hydrogen.

24. Use of a 3,3-diphenyl-1,3-dihydro-indol-2-one type compound of the formula (IIa)



(IIa)

wherein

R^1 is selected from hydrogen, halogen, C_{1-6}-alkyl, trifluoromethyl and C_{1-6}-alkoxy;

R^2 is selected from hydrogen, halogen, optionally substituted aryl, optionally substituted aryloxy, and optionally substituted heteroaryl;

R^3 is selected from hydrogen, optionally substituted C_{1-6}-alkoxy, halogen, cyano, and optionally substituted aryl, optionally substituted aryloxy, optionally substituted heteroaryl, amino, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, and mono- and di(C_{1-6}-alkyl)aminosulfonyl;

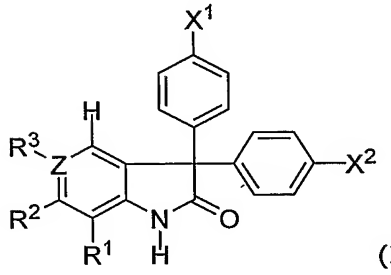
Z is CH or N; and

X^1 and X^2 are independently selected from halogen, OR^6, $OCOR^5$, $N(R^6)_2$, $NHCOR^5$, $NHSO_2R^5$, and $NHCON(R^6)_2$, wherein R^5 is selected from C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl, and each R^6 independently is selected from hydrogen, C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl; and

pharmaceutically acceptable salts and prodrugs thereof;

for the preparation of a medicament for the treatment of cancer in a mammal.

25. Use of a 3,3-diphenyl-1,3-dihydro-indol-2-one type compound of the formula (IIb)



(IIb)

wherein

R^1, R^2, and R^3, when attached to a carbon atom, independently are selected from hydrogen, optionally substituted C_{1-6}-alkyl, optionally substituted C_{2-6}-alkenyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{2-6}-alkenyloxy, carboxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, optionally substituted C_{1-6}-alkylcarbonyloxy, formyl, amino, mono- and di(C_{1-6}-alkyl)amino, carbamoyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, cyano, carbamido, mono- and di(C_{1-6}-alkyl)aminocarbonylamino, C_{1-6}-alkanoyloxy, C_{1-6}-alkylsulphonyl, C_{1-6}-alkylsulphinyl, aminosulfonyl, mono- and di(C_{1-6}-alkyl)aminosulfonyl,

nitro, optionally substituted C_{1-6}-alkylthio, and halogen, where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s); and

R^1, R^2, and R^3, when attached to a nitrogen atom, independently are selected from hydrogen, optionally substituted C_{1-6}-alkyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, formyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, amino, C_{1-6}-alkylcarbonylamino, mono- and di(C_{1-6}-alkyl)amino, C_{1-6}-alkylsulphonyl, and C_{1-6}-alkylsulphinyl; where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted;

or wherein R^1 and R^2 together with the carbon and/or nitrogen atoms to which they are attached form a heterocyclic ring, a heteroaromatic ring, an aromatic ring or a carbocyclic ring;

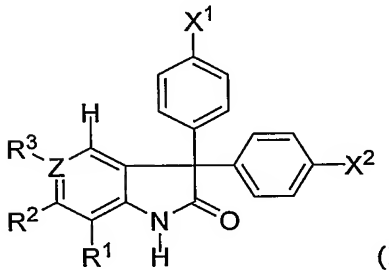
Z is CH or N; and

X^1 and X^2 are independently selected from halogen, OR^6, $OCOR^5$, $N(R^6)_2$, $NHCOR^5$, $NHSO_2R^5$, and $NHCON(R^6)_2$, wherein R^5 is selected from C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl, and each R^6 independently is selected from hydrogen, C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl; and

pharmaceutically acceptable salts and prodrugs thereof;

for the preparation of a medicament for the treatment of cancer in a mammal.

26. Use of a 3,3-diphenyl-1,3-dihydro-indol-2-one type compound of the formula (IIc)



(IIc)

wherein

R^1 is selected from hydrogen, halogen, C_{1-6}-alkyl, trifluoromethyl and C_{1-6}-alkoxy;

R^2 is selected from hydrogen, halogen, optionally substituted aryl, optionally substituted aryloxy, and optionally substituted heteroaryl;

R^3 is selected from hydrogen, optionally substituted C_{1-6}-alkoxy, halogen, cyano, and optionally substituted aryl, optionally substituted aryloxy, optionally substituted heteroaryl, amino, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, and mono- and di(C_{1-6}-alkyl)aminosulfonyl;

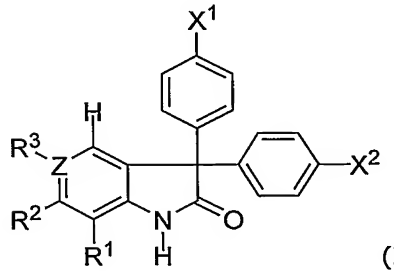
Z is CH or N; and

one of X^1 and X^2 is selected from halogen, OR^6, $OCOR^5$, $N(R^6)_2$, $NHCOR^5$, $NHSO_2R^5$, and $NHCON(R^6)_2$, wherein R^5 is selected from C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl, and each R^6 independently is selected from hydrogen, C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl; and the other of X^1 and X^2 is selected from optionally substituted C_{1-6}-alkyl, optionally substituted C_{2-6}-alkenyl, carboxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, formyl, carbamoyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, cyano, aryl, arylcarbonyl, heterocyclyl, heterocyclylcarbonyl, heteroaryl, heteroarylcarbonyl, where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted; and

pharmaceutically acceptable salts and prodrugs thereof (as defined further above);

for the preparation of a medicament for the treatment of cancer in a mammal.

27. Use of a 3,3-diphenyl-1,3-dihydro-indol-2-one type compound of the formula (IId)



(IId)

wherein

R^1, R^2, and R^3, when attached to a carbon atom, independently are selected from hydrogen, optionally substituted C_{1-6}-alkyl, optionally substituted C_{2-6}-alkenyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{2-6}-alkenyloxy, carboxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, optionally substituted C_{1-6}-alkylcarbonyloxy, formyl, amino, mono- and di(C_{1-6}-alkyl)amino, carbamoyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylsulphonylamino, cyano, carbamido, mono- and di(C_{1-6}-alkyl)aminocarbonylamino, C_{1-6}-alkanoyloxy, C_{1-6}-alkylsulphonyl, C_{1-6}-alkylsulphinyl, aminosulfonyl, mono- and di(C_{1-6}-alkyl)aminosulfonyl, nitro, optionally substituted C_{1-6}-alkylthio, and halogen, where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s); and

R^1, R^2, and R^3, when attached to a nitrogen atom, independently are selected from hydrogen, optionally substituted C_{1-6}-alkyl, hydroxy, optionally substituted C_{1-6}-alkoxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, formyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, amino, C_{1-6}-alkylcarbonylamino, mono- and di(C_{1-6}-alkyl)amino, C_{1-6}-alkylsulphonyl, and C_{1-6}-alkylsulphinyl; where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted;

or wherein R^1 and R^2 together with the carbon and/or nitrogen atoms to which they are attached form a heterocyclic ring, a heteroaromatic ring, an aromatic ring or a carbocyclic ring;

Z is CH or N; and

one of X^1 and X^2 is selected from halogen, OR^6, $OCOR^5$, $N(R^6)_2$, $NHCOR^5$, $NHSO_2R^5$, and $NHCON(R^6)_2$, wherein R^5 is selected from C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl, and each R^6 independently is selected from hydrogen, C_{1-6}-alkyl, optionally substituted aryl and optionally substituted heteroaryl; and the other of X^1 and X^2 is selected from optionally substituted C_{1-6}-alkyl, optionally substituted C_{2-6}-alkenyl, carboxy, optionally substituted C_{1-6}-alkoxycarbonyl, optionally substituted C_{1-6}-alkylcarbonyl, formyl, carbamoyl, mono- and di(C_{1-6}-alkyl)aminocarbonyl, cyano, aryl, arylcarbonyl, heterocyclyl, heterocyclylcarbonyl, heteroaryl, heteroarylcarbonyl, where any C_{1-6}-alkyl as an amino substituent is optionally substituted with hydroxy, C_{1-6}-alkoxy, amino, mono- and di(C_{1-6}-alkyl)amino, carboxy, C_{1-6}-alkylcarbonylamino, C_{1-6}-alkylaminocarbonyl, or halogen(s), and wherein any aryl, heterocyclyl and heteroaryl may be optionally substituted; and

pharmaceutically acceptable salts and prodrugs thereof;

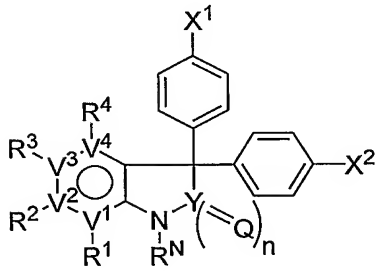
for the preparation of a medicament for the treatment of cancer in a mammal.

28. The use according to any one of the preceding claims, wherein the compound is selected from Items 1 to 225 listed herein.

29. The use according to any one of the preceding claims, wherein the medicament further comprises one or more other chemotherapeutic agents.

30. A compound as defined in any one of the claims 1-28 for use as a medicament, with the proviso that the compound is not one selected from 3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one and acetic acid 4-[3-(4-acetoxy-phenyl)-2-oxo-2,3-dihydro-1H-indol-3-yl]-phenyl ester.

31. A compound of the general formula (I)

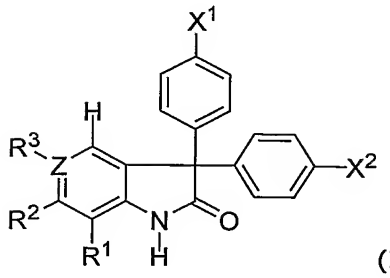


(I)

as defined in any one of the claims 1-23, with the proviso that the compound is not one selected from

3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one,
3,3-bis-(4-hydroxy-phenyl)-7-methyl-1,3-dihydro-indol-2-one;
3,3-bis-(4-hydroxy-phenyl)-4,5-dimethyl-1,3-dihydro-indol-2-one ;
3,3-bis-(4-hydroxy-phenyl)-5,7-dimethyl-1,3-dihydro-indol-2-one;
5-bromo-3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one;
5-chloro-3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one;
3,3-bis-(4-hydroxy-phenyl)-5-methoxy-1,3-dihydro-indol-2-one;
3,3-bis-(4-hydroxy-phenyl)-5-methyl-1,3-dihydro-indol-2-one;
6-chloro-3,3-bis-(4-hydroxy-phenyl)-7-methyl-1,3-dihydro-indol-2-one;
acetic acid 4-[3-(4-acetoxy-phenyl)-2-oxo-2,3-dihydro-1H-indol-3-yl]-phenyl ester; and
acetic acid 4-[3-(4-acetoxy-phenyl)-5-methyl-2-oxo-2,3-dihydro-1H-indol-3-yl]-phenyl ester.

32. A 3,3-Diphenyl-1,3-dihydro-indol-2-one type compound of the formula (II)



(II)

as defined in any one of the claims 24-28, with the proviso that the compound is not one selected from:

3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one,
3,3-bis-(4-hydroxy-phenyl)-7-methyl-1,3-dihydro-indol-2-one;
3,3-bis-(4-hydroxy-phenyl)-4,5-dimethyl-1,3-dihydro-indol-2-one ;
3,3-bis-(4-hydroxy-phenyl)-5,7-dimethyl-1,3-dihydro-indol-2-one;
5-bromo-3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one;
5-chloro-3,3-bis-(4-hydroxy-phenyl)-1,3-dihydro-indol-2-one;
3,3-bis-(4-hydroxy-phenyl)-5-methoxy-1,3-dihydro-indol-2-one;
3,3-bis-(4-hydroxy-phenyl)-5-methyl-1,3-dihydro-indol-2-one;
6-chloro-3,3-bis-(4-hydroxy-phenyl)-7-methyl-1,3-dihydro-indol-2-one;
acetic acid 4-[3-(4-acetoxy-phenyl)-2-oxo-2,3-dihydro-1H-indol-3-yl]-phenyl ester; and
acetic acid 4-[3-(4-acetoxy-phenyl)-5-methyl-2-oxo-2,3-dihydro-1H-indol-3-yl]-phenyl ester.

33. A pharmaceutical composition comprising a compound as defined in any one of the claims 1-28 and a pharmaceutically acceptable carrier.